

IN THE SPECIFICATION:

Please substitute the attached sections or paragraphs of pages 9, 10, 11 and 12 for the relevant sections or paragraphs of pages 9, 10, 11 and 12 of record.

Section 4 of Page 9 of Specification:

1.1.1) Start loop for the attenuator element (k)

$$\sigma a + \sigma a + Z_{(k)} \times \sigma a$$

$$PE_{(i,j,k)} - PP_{(i,j,k)} - C_{(i,j,k)}$$

$$\mu_{a(i,j,k)} = [\sigma a_{PE(i,j,k)} + \sigma a_{PP(i,j,k)} + Z_{(k)} \times \sigma a_{C(i,j,k)}] \times \rho_{(k)} \times A_v / A_{(k)}$$

where: $\sigma a_{PE(i,j,k)}$ = effective photoelectric absorption cross-section

$\sigma a_{C(i,j,k)}$ = Compton effective absorption cross-section

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$$\mu_a^{(NaI)} = \frac{[\sigma a^{(NaI)} + Z_{(NaI)} X \sigma a^{(NaI)}] X \frac{Av}{C(j)} X \rho(NaI)}{(i,j) \quad PE(j) \quad C(j) \quad A_{(NaI)}}$$

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$$\frac{\sigma_{\text{dif}}(j) \cdot (N_{\text{Al}}) \cdot Z_{(N_{\text{Al}})} \cdot \text{Final flux}_{(i,j,k)} \cdot A_v \cdot \rho_{(N_{\text{Al}})} \cdot X}{A_{(N_{\text{Al}})}}$$

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$$= \frac{\sigma_{\text{dif}} C_{(j)} (N_{\text{ai}}) \times Z_{(N_{\text{ai}})} \times \text{final flux}_{(i,j,k)} \times A_v \times \rho_{(N_{\text{ai}})} \times X_{(N_{\text{ai}})}}{A_{(N_{\text{ai}})}}$$

where: $\sigma_{\text{dif}} C_{(j)} (N_{\text{ai}})$ = effective Compton front scattering cross-section

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$$= \frac{\sigma_{\text{dif}} C_{(j''')} (Nal) \times Z_{(Nal)} \times \text{final flux}_{(i,j,k)} \times Av \times \rho_{(Nal)} \times X_{(Nal)}}{\overline{A_{(Nal)}}}$$

where: $\sigma_{\text{dif}} C_{(j''')}$ = effective Compton background scattering cross-section.